

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.	JOB ORDER NUMBER	APPROP. FY
QSS Group, Inc.	NAS5- 99124 TASK NO. 354 AMENDMENT	415-616-41-29-89	00 & 01

TASK TITLE: (NTE 80 characters; include Project name)

GOES N-Q Systems Engineering and Electrical Power System Engineering Services

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	MAIL CODE	PHONE
David Mitchell <i>David Mitchell</i>	8/30/00	415	415	301-286-0415
BRANCH HEAD	DATE	CODE		PHONE
Martin Davis <i>Martin Davis</i>	8/30/00	415	415	301-286-8998
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)	DATE	CODE		PHONE
Robert Lebar <i>Robert Lebar</i>	8/31/00		560	301-286-6588
FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)	CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:		
[X] NO [] YES				

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)
C.O. Requested Quote on:
Date:

Contractor will develop specification or statement of work under this task for a future procurement. [X] NO [] YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. [] NO [] YES [X] N/A

Government Furnished Property/Facilities: [X] NO [] YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

Onsite Performance: [] NO [X] YES If yes: [X] TOTAL [] PARTIAL
If partial, indicate onsite work in SOW by asterisk (*)

Surveillance Plan Attached: [X] NO [] YES

Highlighted Contract Clauses: (to be completed by Contracting Officer)

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 10/1/00.

INCENTIVE FEE STRUCTURE (check one)

	<input checked="" type="checkbox"/> No. 1	No. 2	No. 3	No. 4	No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%

(To be completed by Contracting Officer)

The target cost of this task order is \$ 1,083,645

The target fee of this task order is \$ 70,222

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 1,153,867

The maximum fee is \$ 102,632

The minimum fee is \$0.

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

Theresa J. Becker
SIGNATURE OF CONTRACTING OFFICER

12/7/00
DATE

Theresa J. Becker
TYPED NAME OF CONTRACTING OFFICER

CONTRACTOR'S ACCEPTANCE:

DATE

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR:	CONTRACT NO./TASK NO.																
QSS Group, Inc.	NAS5- 99124	TASK NO. 954	AMENDMENT														
Applicable paragraphs from contract Statement of Work: Function 2 I																	
STATEMENT OF WORK: See Page 3.																	
PERFORMANCE SPECIFICATIONS: All plans and procedures under this task are to be produced using industry standard practice. Review all non-conformance reports and assess problems, issues and impacts of non-conformance; recommend actions. Weekly Reports and Technical Progress Reports: shall contain a summary of activities completed, planned activities for the following period, problems, and issues and recommended actions. Acceptable performance is that the ATR is satisfied that he is being kept informed of the status of work performed and of issues requiring his attention. Management: Performance will be measured against the following metrics: (1) accomplishment of objectives; (2) clear, incremental progress; (3) responsiveness to issues; (4) efficient and appropriate staffing; and (5) coordination with and good working relationship with ATR and other related contractor efforts, if applicable.																	
APPLICABLE DOCUMENTS: Evaluation and input to be based on all applicable GOES Spacecraft Performance and Verification Documents.																	
TASK END DATE: 9/30/01																	
MILESTONES/DELIVERABLES AND DATES: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Weekly Status Reports</td> <td>Weekly to ATR and GOES Project and cognizant Branch personnel.</td> </tr> <tr> <td>Summary Report on EPS Issues/Status</td> <td>Initial status report within 2 days to ATR. Final Report to ATR and branch personnel within 7 days after closure.</td> </tr> <tr> <td>Technical Progress Report</td> <td>Monthly, 15th of the month</td> </tr> <tr> <td>GOES Spacecraft Review Summary Report</td> <td>within 14 days after Review completion</td> </tr> <tr> <td>Copies of Written Correspondence</td> <td>Within 5 days of issuance</td> </tr> <tr> <td>Non-conformance review and analysis</td> <td>Within 3 days of assignment by ATR</td> </tr> <tr> <td>Weekly assessment reports</td> <td>Email by COB each Friday to the ATR: David.F.Mitchell.1@gsfc.nasa.gov</td> </tr> </table>				Weekly Status Reports	Weekly to ATR and GOES Project and cognizant Branch personnel.	Summary Report on EPS Issues/Status	Initial status report within 2 days to ATR. Final Report to ATR and branch personnel within 7 days after closure.	Technical Progress Report	Monthly, 15th of the month	GOES Spacecraft Review Summary Report	within 14 days after Review completion	Copies of Written Correspondence	Within 5 days of issuance	Non-conformance review and analysis	Within 3 days of assignment by ATR	Weekly assessment reports	Email by COB each Friday to the ATR: David.F.Mitchell.1@gsfc.nasa.gov
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PERFORMANCE STANDARDS: Schedule: On-time delivery/completion of the deliverables/milestones Technical: ATR's acceptance of the above																	
FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM): David Mitchell, building 6, room W232																	

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QSS Group, Inc.	NAS5- 99124	354	

STATEMENT OF WORK:

(This is a follow-on to Tasks 170 and 268 under this contract; uninterrupted transition is required.)

The contractor shall provide system engineering evaluations and assessments of the GOES-N-Q spacecraft and instruments for compliance to the Performance Specifications, Statements of Work, and Interface Control Documents. Other activities will be an assessment of the spacecraft integration and mission operations plans. This work is required to ensure the successful design, build, test, launch and operation of the GOES-N-Q satellites. In addition, the contractor shall supply onsite personnel to ensure the smooth flow and engineering checkout of the satellite.

- a. Provide engineering capabilities to ensure proper design review of mechanical and electro-mechanical devices on GOES N-Q satellites. This work shall be accomplished during the design, development, fabrication, testing and launch activities of the GOES N-Q satellite.
- b. Assess design reviews, evaluate testing and integration activities, evaluate system performance, physically participate in required launch activities, and participate in all phases of operation planning for subsystems and instruments.
- c. Provide systems engineering analysis for the design and development of the GOES N-Q Radio Frequency (RF) communications subsystem and related efforts required to successfully complete GOES integration and test activities.
- d. Provide systems engineering analysis for the design and development of the GOES N-Q Telemetry and Command (T&C) subsystem and related efforts required to successfully complete these integration and test activities.
- e. Provide Imager/Sounder test and integration engineering assessment to insure reliable development and testing at vendor facilities. Coordinate GSFC support services when required, and manage, with Code 415 personnel, the integration of each instrument on the spacecraft.
- f. Provide engineering and analysis services to the GOES Project to evaluate the design, development and test of the GOES N-Q SXI instrument.
- g. Coordinate software ACE modeling for engineering and simulations purposes - in coordination with the MOST team.
- h. Provide system engineering services to maintain and update the database for the GOES Incident Reports (GIRs). Coordinate this work with the SOCC, NOAA, NASA and the N-Q prime contractor.
- i. Provide analysis of the SXI instrument performance test activity at the SXI contractor's facilities and evaluate SXI electrical and mechanical interfaces with the spacecraft. Provide EMI/EMC evaluation at the SXI facilities as required.
- j. Conduct technical studies and analyses of spacecraft subsystems to determine the best systems configuration to accomplish mission objectives.
- k. Identify critical and potential problem areas and prepare plans for their resolution.
- l. Provide services in support of test planning, test performance, and test data analysis to ensure the function and reliability of the flight and ground systems, and the attainment of payload performance objectives.

Travel to flight hardware vendors at least one week per month is anticipated.

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STATEMENT OF WORK: (continued)

The contractor shall provide the necessary engineering services to assist the GOES Project and Power Systems Branch in the technical oversight of the GOES N-Q Electrical Power System (EPS). This technical purview shall include spacecraft electrical power systems and associated flight interface and associated ground support equipment, and instrument power system development and verification. The contractor shall have knowledge of the GOES N-Q EPS, including batteries, and solar cells/arrays. The contractor shall have knowledge of ground integration procedures and electrical power system preparation procedures leading to spacecraft launch. The contractor shall be familiar with operations aspects of the GOES N-Q EPS.

The contractor shall:

1. Monitor power system design, integration, test activities, and pre-launch activities, including battery reconditioning for the GOES N-Q EPS.
2. Participate in all working meetings and teleconferences in the Branch, the Project, at the GOES N-Q Prime Contractor, at the Subcontractor facilities on issues related to the GOES EPS.
3. Review and provide recommendations on all EPS related problem reports, waivers, and deviations.
4. Report to the Branch and to the GOES Project on a weekly basis regarding the status of the GOES N-Q EPS.
5. Provide copies of written correspondence (memos and e-mail) between himself and the Project/Prime Contractor/ Subcontractor on GOES N-Q EPS to the ATR and cognizant Branch personnel.
6. Communicate with the ATR within 2 days whenever a problem is surfaced that could affect the performance, schedule or cost of the EPS.
7. Attend all GOES N-Q spacecraft reviews such as Program Status Review, Pre-Ship Review, Launch Readiness Reviews, etc.
8. Meet or communicate regularly (biweekly, at minimum) with GOES Prime Contractor personnel to ascertain current status of the EPS and assist in resolving any open issues.
9. Provide a monthly summary of his activities to the ATR and cognizant Branch personnel.
10. Review and analyze flight battery/cell performance and cell life cycle test results.
11. Analyze flight solar array power output predictions and review performance test results.
12. Evaluate power system electronics performance under steady state and dynamic load conditions such as determination of potential for lockup and instability.
13. Monitor the design and improvement to the SXI, Sounder and Imager power supply electronics design.
14. Monitor the growth in power demand by instruments and subsystems to determine the impact on achieving power system energy balance at mission end-of-life.
15. Investigate in-flight power system anomalies and failures on spacecraft that share design commonality with the GOES N-Q EPS to prevent such occurrences during the GOES N-Q mission.